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CLAIMS

1. A gas regulator (1) intended to be mounted on a gas supply pipe connecting a gas source to a user device, and comprising a pressure regulation mechanism (11, 12) controlled by the movement of a mobile element (8), characterized in that it comprises a casing (2) containing at least one adjustable prestressed actuator (21) acting on the mobile element and used to take account of the variation of the altimetric pressure.
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2. The regulator (1) as claimed in claim 1, characterized in that the adjustable prestressed actuator is made with the aid of a spring (21) having, on the one hand, a first end resting against the mobile element (8), and, on the other hand, a second end resting against a member (24) adjustable from the outside.
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3. The regulator (1) as claimed in claim 2, characterized in that the adjustable member is made with the aid of an altimetric adjustable ring (24) having a side wall resting on the second end of the spring (21).
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4. The regulator (1) as claimed in either one of claims 2 and 3, characterized in that a knurled cover (26) covers the adjustable member (24).
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5. The regulator (1) as claimed in claim 4, characterized in that the knurled cover (26) has an at least partially threaded inner face capable of interacting with a threaded portion of the side wall (3) of the casing (2).
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6. The regulator (1) as claimed in either one of
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claims 4 and 5, characterized in that the side wall (3) of the casing (2) is provided with a scale (27) used to position the knurled cover (26) appropriately according to the altitude.

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7. The regulator (1) as claimed in any one of claims 4 to 6, characterized in that it comprises fastening means used to immobilize the knurled cover (26) after it has been correctly positioned.

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8. The regulator (1) as claimed in any one of claims 1 to 7, characterized in that it comprises a heat-sensitive member (17) acting on the mobile element (8) via at least one actuator.

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9. The regulator as claimed in claim 8, characterized in that the heat-sensitive member (17) comprises a deformable inner wall.

20 10. The regulator (1) as claimed in claim 9, characterized in that the heat-sensitive member (17) contains a variable volume element.

25 11. The regulator (1) as claimed in either one of claims 9 and 10, characterized in that the actuator is made with the aid of a pushrod (19) resting on an intermediate spring (22), said pushrod being inserted into the heat-sensitive member (17) so as to come into contact with the deformable inner wall of the latter.

30 12. The regulator (1) as claimed in any one of claims 1 to 11, characterized in that a relief system is arranged at the mobile element (8).

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13. The regulator (1) as claimed in claim 12, characterized in that the mobile element is made in the form of a membrane (8), and in that the relief system comprises, on the one hand, an end-

piece (10) attached to the pressure regulation mechanism (11, 12), and, on the other hand, a rod (9) passing through the membrane, a central spring (28) being positioned around the rod in order to have a first end resting on the membrane and a second end fixedly attached to the rod.

- 5 14. The regulator (1) as claimed in either one of claims 12 and 13, characterized in that the side wall (3) of the casing (2) comprises at least one orifice (7) for releasing the flow of gas having passed through the relief system.
- 10 15. The regulator (1) as claimed in any one of claims 1 to 14, characterized in that a friction ring (13) is placed in the casing (2) and has, on the one hand, a base (14) slid between the mobile element (8) and the springs (21, 22, 28), and, on the other hand, a toothed side wall in contact with the inner face of the side wall (3) of the casing.
- 15 20 25 16. The regulator (1) as claimed in any one of claims 1 to 15, characterized in that it comprises a flow limiter system which is triggered for any flow greater than at least 20% of the nominal flow.
- 30 17. The regulator (1) as claimed in claim 16, characterized in that the flow limiter system comprises a manual resetting member capable of acting on a blanking element.